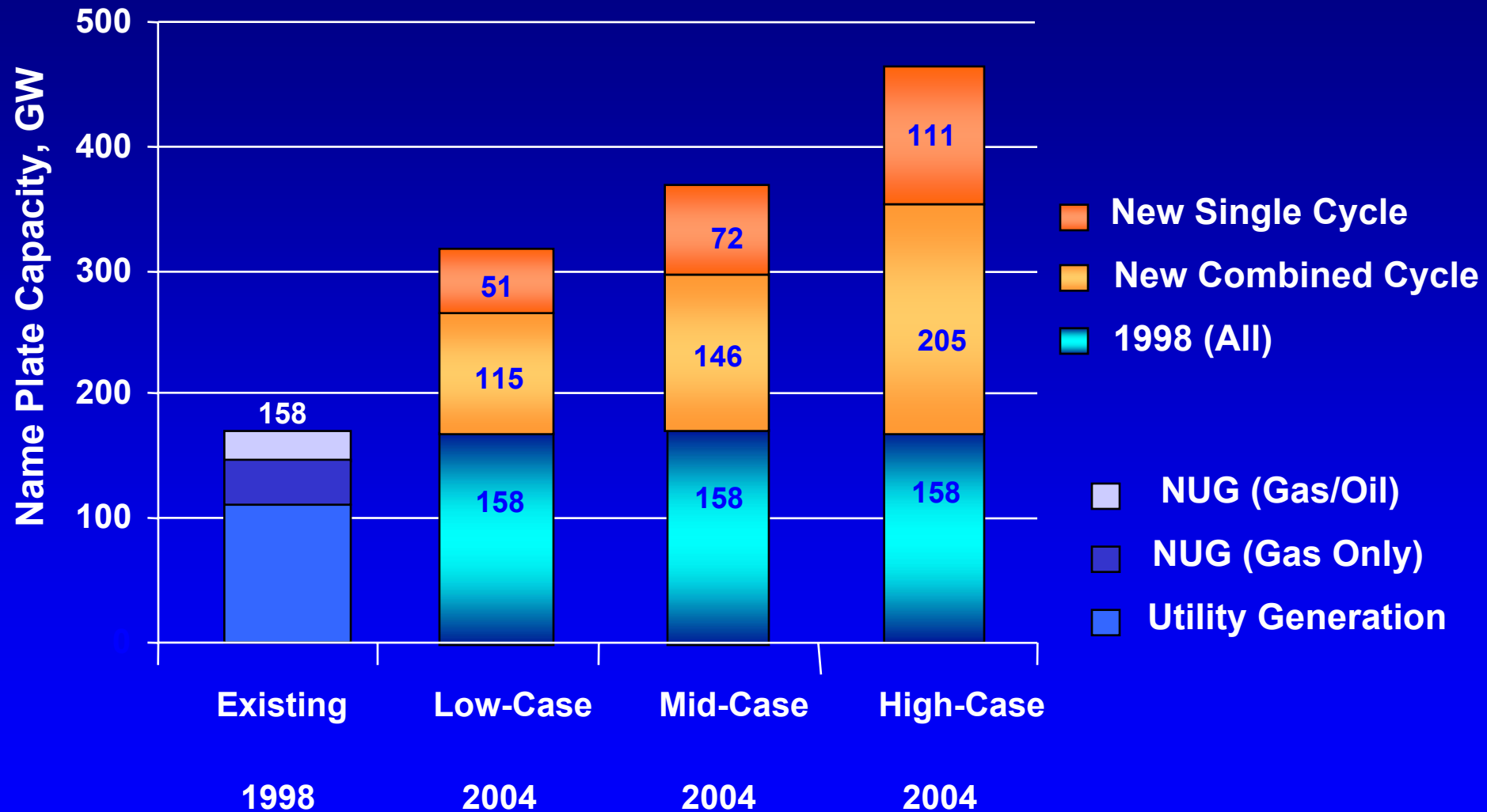


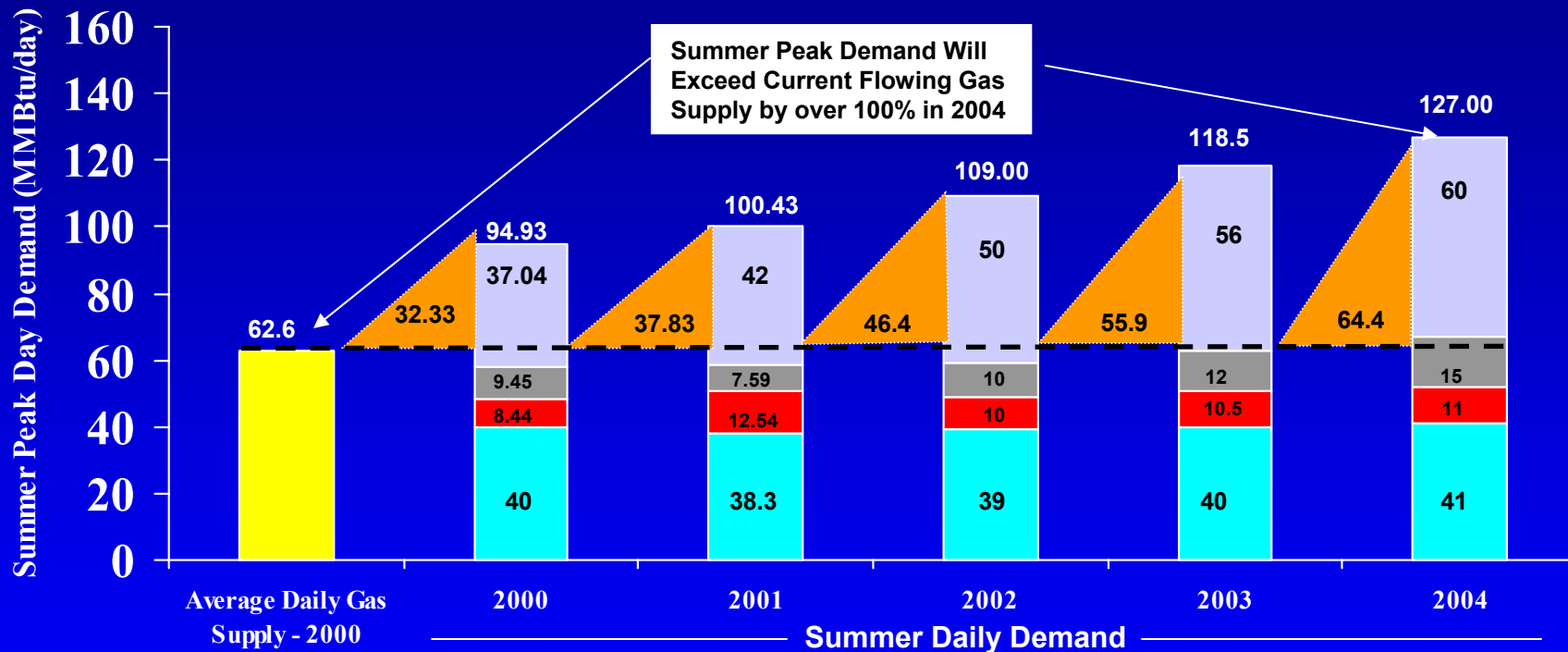
GFEG Existing and Forecasted Capacity



Summer Peak Day Demand and GFEG Load Swings 2000-2004

(Assumes 200,000 MW of New GFEG Capacity Placed In Service from 1998-2004)

Where is the Summer Peak-Day Deliverability Going to Come From?



- Summer Peaking Supply Required to Meet Summer Peak Demand
- Avg. Daily Net Storage Injections
- Estimated Baseload-To-Peak GFEG Swing Demand
- RCI&O Baseload Demand
- Estimated Baseload GFEG Demand
- Gas Supply



Major Regional Pipeline OFOs and Imbalance/Overrun Penalties*

<u>Region</u>	<u># of Pipelines</u>	<u>Pipelines Requiring Ratable Hourly Flow**</u>	<u>Pipelines Implementing OFOs</u>	<u>Pipelines Assessing Imbalance/Overrun Penalties</u>
West	5	3	4	4
Midwest	9	8	9	9
East	10	10	10	10
Southeast	2	2	2	2
Texas	2	2	2	2
Total	28	25	27	27

*Based on a survey of the tariffs of 28 of the largest interstate and intrastate pipelines

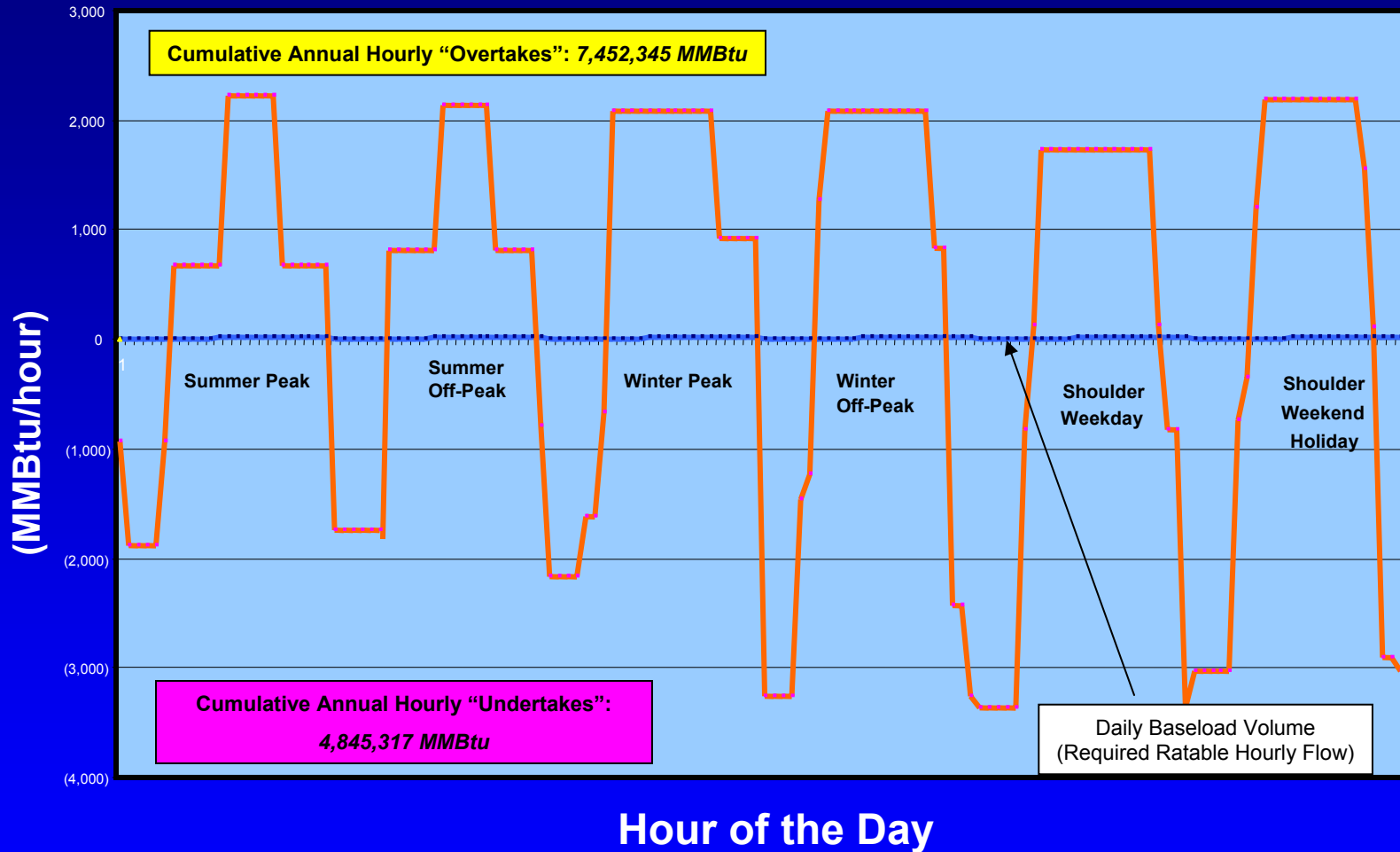
**Within a narrowly-defined tolerance (e.g., $\pm 10\%$)



Hourly Pipeline Imbalances Caused by Intra-Day Load Swings

For a Typical 750 MW Combined Cycle GFEG Facility

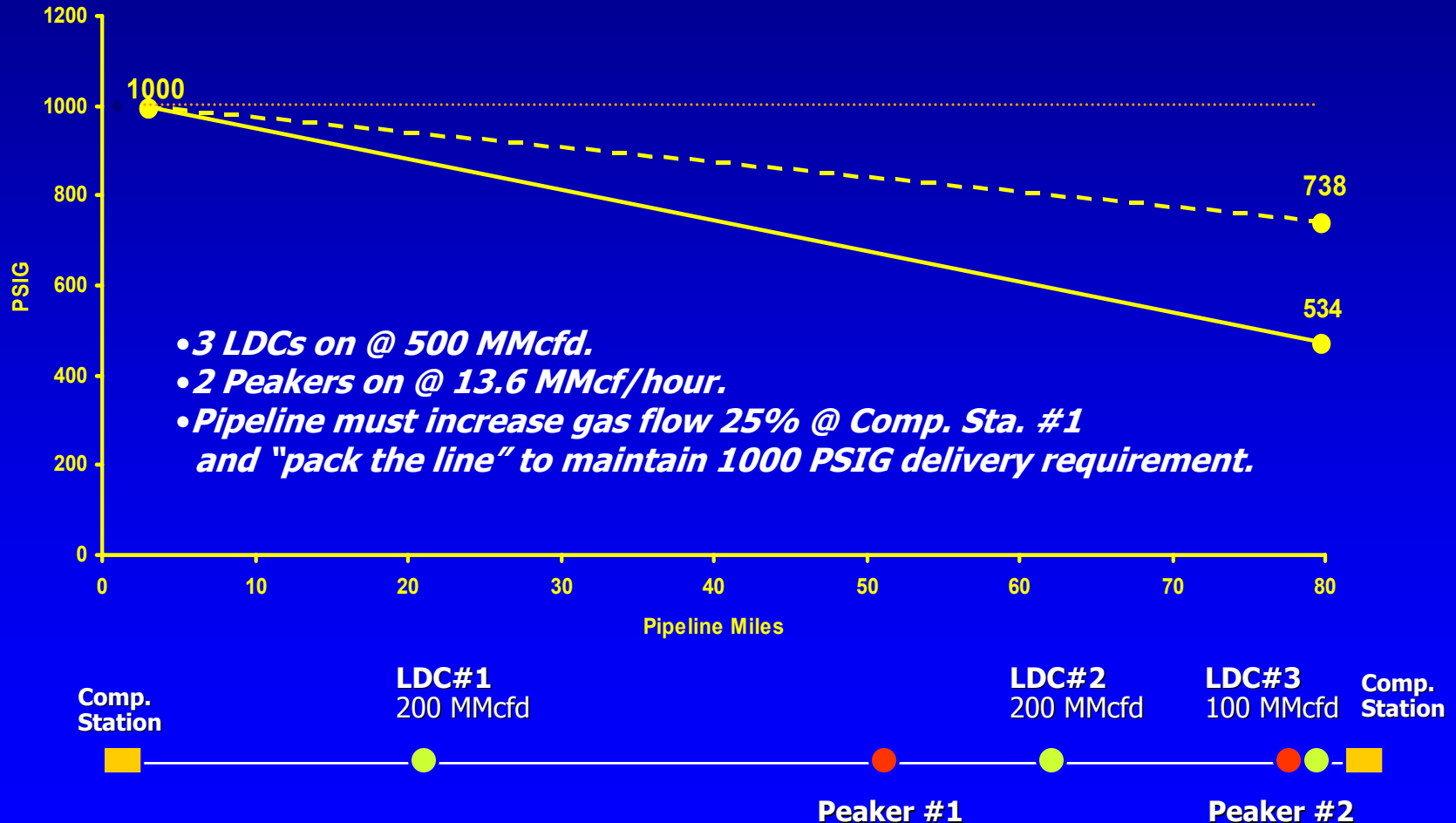
Overtakes/Undertakes from Pipeline
Required To Balance Intra-Day Load Swings



(Each tick mark represents 1 hour with each day's pattern beginning at midnight)

Pressure Impact of Gas-Fired Generator On-Line

Hypothetical 36", 80-mile segment



Imbalance Penalty Analysis

<u>Type of Imbalance*</u>	<u>Volume (MMBtu)*</u>	<u>Total Imbalance Overrun Penalties</u>	
		<u>@ \$0.50/MMBtu</u>	<u>@ \$1.00/MMBtu</u>
• Cumulative Annual “Overtakes”	7,452,345	\$3,726,172	\$7,452,345
• Cumulative Annual “Undertakes”	4,845,317	\$2,422,659	\$4,845,317
• Cumulative Total Imbalances	<u>12,297,662</u>	<u>\$6,148,831</u>	<u>\$12,297,662</u>

* From Slide 4



Lost Opportunity Cost 750 MW GFEG (CC) Facility

Duration of Service Interruption (Gas Deliveries Suspended/Curtailed)

<u># of Hours</u>	<u>% of Annual Total*</u>
100	2%
200	4%
300	6%

Lost Opportunity Cost (No Power Dispatched)

<u>@ \$50/MWH</u>	<u>@ \$100/MWH</u>	<u>@ \$250/MWH</u>
\$3.75 MM	\$7.5 MM	\$18.75 MM
\$7.5 MM	\$15 MM	\$37.5 MM
\$11.25 MM	\$22.5 MM	\$56.25 MM

* Assumes Total Annual Dispatch of 5,000 Hours (57% Annual Load Factor)

